भारतीय मानक

Indian Standard

IS 9906 : 2023

वस्त्र प्रसंस्करण सहायक सामग्री — लॉन्ड्री स्टार्च — विशिष्टि

(पहला पुनरीक्षण)

Textile Auxiliaries — Laundry Starch — Specification

(First Revision)

ICS 59.040

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November 2023 **Price Group 4**

Textile Speciality Chemicals and Dyestuffs Sectional Committee, TXD 07

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Textile Speciality Chemicals and Dyestuffs Sectional Committee had been approved by the Textiles Division Council.

This standard was first published in 1981 and was based JSS-6850-1968 Starch, laundry, issued by the Ministry of Defence, Government of India. The standard has been revised in the light of experience gained since last revision and to incorporate the following major changes:

a) Title of the standard has been modified;
b) Packing and marking clauses have been modified;
c) Off white colour has been additionally specified for laundry starch based on the experience gained from current industrial practices; and
d) References to Indian Standard have been updated.

The composition of the Committee responsible for the formulation of this standard is given in Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILE AUXILIARIES — LAUNDRY STARCH — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers laundry starch used as a stiffening material in laundries.

2 REFERENCES

The standards given below contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

IS No.	*Title*
IS 4706 (Part 2) : 1978	Methods of test for edible starches and starch products: Part 2 Chemical methods (*first revision*)
IS 12100 : 1987	Specification for high density polyethylene (HDPE) woven sacks for packing flour
IS 17279 : 2019	Textiles — Polypropylene (PP) nonwoven sacks for packing bulk commodities — Specification
IS 14818 : 2017/ ISO 24333 : 2009	Cereal and cereal products sampling (*first revision*)

3 REQUIREMENTS

3.1 The laundry starch shall be dry fine powder free from lumps, gritty particles, visible impurities, foreign matter and any foul odour.

NOTE — Crystalline micro-lumps may be accepted if so specified in the contract or order.

3.2 The laundry starch shall conform to the requirements given in Table 1.

Table 1 Requirements of Laundry Starch

(*Clauses* 3.2 *and* 5.2)

Sl No.	**Characteristic**	**Requirement**	**Method of Test, Ref to**
(1)	(2)	(3)	(4)
i)	Colour	Off white or white	Visual
ii)	Moisture, percent, *Max*	13	IS 4706 (Part 2)
iii)	Reaction of water extract:		Annex A
	a) Acidity to phenolphthalem (as H_2SO_4), percent, *Max*	0.1	
	b) Alkalinity to methyl orange (as Na_2CO_3), percent, *Max*	0.2	
iv)	Ash, percent, *Max*	2.0	IS 4706 (Part 2)
v)	Starch content, percent by mass (on dry mass basis), *Min*	95	9 of IS 4706 (Part 2)
vi)	Grit content, percent by mass, *Max*	0.5	Annex B

4 PACKING AND MARKING

4.1 The laundry starch shall be packed in polyethylene lined woven sack conforming to IS 12100 or polypropylene lined nonwoven bags conforming to IS 17279 or any other packing material as agreed between the buyer and seller.

4.2 Each package shall be legibly marked with the following information:

a) Name of the material;
b) Net weight;
c) Lot and batch number;
d) Month and year of manufacture;
e) Manufacturer's name, initials or trade-mark, if any; and
f) Any other information/instruction provided by the manufacture/required under law.

4.2.1 *BIS Certification Marking*

The product(s) conforming to the requirements of this standard may be certified as per theconformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

5 SAMPLING

5.1 Unless otherwise agreed between the buyer and seller the procedure given in IS 14818 may be followed for sampling inspection.

5.2 The tests for requirements given in **3.1** and Table 1 shall be carried out on the composite sample and the lot will be considered conforming if the composite sample meets the requirements in respect of all the characteristics.

ANNEX A

(*Table* 1)

METHOD OF TEST FOR ACIDITY AND ALKALINITY

A-1 PROCEDURE

A-1.1 Weigh 10 g of sample, mix 200 ml of cold distilled water with it, stir well and titrate it with standard decinormal acid or alkali, using phenolphthalein as indicator. Take a further 10 g of sample and similarly treat it using methyl orange as indicator. Carry out a blank determination on 200 ml of water and make-necessary correction in the titre readings.

A-2 CALCULATION

Acidity, percent (calculated as H_2SO_4) =

$$\frac{V \times N \times 0.049 \times 100}{M}$$

Alkalinity, percent (calculated as Na_2CO_3) =

$$\frac{V \times N \times 0.053 \times 100}{M}$$

where

V = volume in millilitres of acid/alkali required;

N = normality of the acid/alkali; and

M = mass, in g, of the sample taken for test.

ANNEX B

(*Table* 1)

METHOD OF TEST FOR GRIT CONTENT

B-1 PROCEDURE

B-1.1 Take 20 g of material and weigh it accurately. Add about 100 ml of water. To this add 10 ml of 30 percent of hydrochloric acid and reflux for $2\frac{1}{2}$ hours to complete hydrolysis. Filter the solution when hot through G-3 Gooch crucible. Wash the residue with hot water till free from acid. Dry the residue and weigh it till constant mass is obtained.

B-2 CALCULATION

Grit, percent, by mass = $\frac{W_2}{W_1} \times 100$

where

W_2 = mass of the residue, in g; and

W_1 = mass of the sample in g, taken for the test.

ANNEX C

(*Foreword*)

COMMITTEE COMPOSITION

Textile Speciality Chemicals and Dyestuffs Sectional Committee, TXD 07

Organization	*Representative(s)*
Department for Jute and Fibre Technology Institute of Jute Technology University of Calcutta, Kolkata	Prof A. K. Samanta (***Chairperson***)
Ahmedabad Textile Industry's Research Association, Ahmedabad	Shrimati Deepali Plawat Shrimati Fahimunnisa Khatib (*Alternate*)
Ama Herbals Laboratories Pvt Ltd, Lucknow	Shri Y. A. Shah
Archroma India Pvt Limited, Mumbai	Shri Rajesh Ramamurthy Shrimati Prachi Narvekar (*Alternate*)
Atul Limited (Colors Business), Valsad	Shri Rajaram Jamdade Shri Arindam Chakraborty (*Alternate*)
Bio Dyes India Pvt Ltd, Goa	Dr Bosco Henriques
Central Coir Research Institute, Alappuzha	Dr Shanmugasundaram O. L. Dr S. Radhakrishnan (*Alternate*)
Central Institute for Research on Cotton Technology, Mumbai	Dr Sujata Saxena Dr A. S. M. Raja (*Alternate*)
Department for Jute and Fibre Technology Institute of Jute Technology University of Calcutta, Kolkata	Dr D. Das
Global Organic Textile Standard, (GOTS), Thane	Shri Rahul Bhajekar Miss Prachi Gupta (*Alternate*)
Indian Jute Industries Research Association, Kolkata	Dr S. K. Chakrabarti Shri Sandip Basu (*Alternate*)
Northern India Textile Research Association, Ghaziabad	Dr M. S. Parmar Dr Nidhi Sisodia (*Alternate*)
Office of the Textile Commissioner, Mumbai	Shri Gaurav Gupta Shri Sanjay Charak (*Alternate)*
SGS India Pvt Ltd, Mumbai	Shri Karthikeyan K. Shri Gaurav Saraswat (*Alternate*)
Shree Pushkar Chemicals & Fertilizers Ltd, Mumbai	Dr N. N. Mahapatra
Textiles Committee, Mumbai	Shri Kartikeya Dhanda Shrimati Shilpi Chauhan (*Alternate*)
The Arvind Mills Limited, Ahmedabad	Shri Rajarshi Ghosh Shri Umasankar Mahapatra (*Alternate*)
The Bombay Textile Research Association, Mumbai	Dr Padma S. Vankar Shri M. P. Sathianarayanan (*Alternate*)

Organization	*Representative(s)*
The South India Textile Research Association, Coimbatore	Dr Prakash Vasudevan Shri S. Sivakumar (*Alternate*)
The Synthetic and Art Silk Mills Research Association, Mumbai	Shrimati (Dr) Manisha Mathur Shrimati Ashwini Sudam (*Alternate*)
U P Textile Technology Institute, Kanpur	Dr Arun Kumar Patra Dr Shubhankar Maity (*Alternate*)
Wool Research Association, Thane	Shrimati (Dr) Mrinal Choudhari
BIS Directorate General	Shri J. K. Gupta, Scientist 'E'/Director and Head (Textiles) [Representing Director General (*Ex-officio*)]

Member Secretary
Shri Himanshu Shukla
Scientist 'B'/Joint Director
(Textiles), BIS

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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